

Instructions for Installing TReK 4.4.0 on RHEL 6.x

*Note: Choose the correct installation files for a 32-bit or 64-bit Red Hat Enterprise 6.x system. If you have any questions, contact the TReK Help Desk at trek.help@nasa.gov or 1-256-544-3521. There are two different tar files for TReK. One tar file contains all of the TReK processes and libraries. The second tar file contains third party libraries. Each tar file contains multiple Red Hat Package Manager (RPM) files for installation. If you are interested in installing only a subset of TReK capabilities, see the Section labeled **Minimal Installs**.*

Installing Required Third Party Libraries:

TReK requires the several third party libraries. If you don't have them loaded on your system already and would rather install them with an RPM, you can use the RPMs provided with TReK:

- International Components for Unicode (ICU) version 51.2
- Qt Open Source version 5.2.1
- Xerces-C++ XML Parser version 3.1.1
- Crypto++ version 5.6.2
- Interplanetary Overlay Network (ION) version 3.3.1b (TReK 4.4.0 requires ION 3.3.1 or ION 3.3.1b, previous versions of ION are not compatible.)
- SQLite 3.10.2

Special Note for 64-bit Linux Installation – The RPMs for the previous releases installed the libraries in /usr/lib instead of /usr/lib64. The RPMs provided with this release will install the libraries in /usr/lib64. You can remove the third party libraries with the following commands (You may need to uninstall a previous version of TReK as described on the next page prior to running these commands):

```
> su
Password: *****
# rpm -e ion-open-source
# rpm -e qt-opensource
# rpm -e icu
# rpm -e xerces-c
# rpm -e cryptopp
# rpm -e sqlite-3.10.2
```

You can download the appropriate 32-bit or 64-bit third party libraries from the TReK web site as a tar file.

You can install all of the RPMs at one time by going to the directory containing the RPMs as shown below (assumes that you have copied the provided RPMs to the current working directory):

```
> su
Password: *****
# rpm -ihv *.rpm
# exit
>
```

Uninstalling Previous Versions:

It is possible to run multiple versions of TReK on the same computer, but it is recommended that you only do this if absolutely needed. If a previous version of TReK is installed, the following command will uninstall it:

Warning: This will uninstall anything with 'trek' in the name. If you are unsure if something else may have the name 'trek' in it, just run the command 'rpm -qa | grep trek' to see what is on your system.

```
> su
Password: *****
# rpm -qa | grep trek | xargs rpm -e
# exit
>
```

Installing TReK:

Once you have installed the required libraries use the following commands to install TReK (assumes that you have copied the TReK RPMs to the current working directory):

```
> su
Password: *****
# rpm -ihv trek-*.rpm
# exit
>
```

Note: There is a file installed that will update environment variables on your system. It will be executed when you log into the system. If you are having problems running TReK after installation, you may be able to resolve the problem by logging off the system and logging back on.

What is Installed:

Most of the TReK files are installed in the /usr/trek-x.y.z directory where x.y.z is replaced with the version number. The x indicates the major release number. The y indicates the minor release number. The z indicates the bug fix (service pack) number. If the first two values are zero, the release is considered an alpha release and is not distributed to external TReK users. If only the first number is

zero, the release is considered a beta release and is available to the general TReK user community. Only releases that begin with a non-zero number are considered operationally ready.

The following files are also installed by TReK. The same x.y.z rules above will appear in these files. This allows multiple versions of TReK to be installed on the same computer:

- `/etc/profile.d/trek-toolkit.sh` – sets environment variables needed to run TReK (TREKROOT, TREK_INCLUDE, TREK_LIB, and PATH). *Note: If you start TReK from the menu, these environment variables will be reset for the correct version. If you run from the command line, you will need to reset the variables as needed if you have multiple versions of TReK installed.*
- `/usr/share/desktop-directories/` -- menu directories for TReK
 - `trek-x.y.z.directory`
 - `trek-x.y.z -doc.directory`
 - `trek-x.y.z -doc-tutorial.directory`
 - `trek-x.y.z -doc-user-guide.directory`
- `/usr/share/applications/` -- menu items for TReK applications, etc. All items in this directory are prefixed with `trek-x.y.z`.
- `/etc/xdg/menus/applications-merged/trek-x.y.z.menu` – creates a menu item under Applications.

Minimal Install:

If you are only interested in a subset of the capabilities provided by TReK, you can install only the required packages to get those capabilities. The information below has been requested by other users. If you do not see the capabilities that you wish to install, please contact the TReK Help Desk at trek.help@nasa.gov to get further assistance. This list will grow based on feedback from users.

TReK release packages are named with the following format:

`trek-name-version.architecture.rpm` (e.g., `trek-help-4.4.0-1.el6.i386.rpm`). The lists below contain the '**name**' of the package, you should install (e.g., **help**).

Which packages do I need to run CFDP over UDP only?

- `cfdp`
- `cfdpconsole` (not needed if you intended to write your own CFDP software with the provided APIs)
- `deviceservices`

Which packages do I need to run just the EXPRESS interface for my payload on ISS?

- `express`
- `deviceservices`
- `data` (requires `xerces-c_3_1` provided in the third party installs)